What is claimed is:

1   1.   A method comprising:

2   receiving frames partitioned into multiple timeslots;

3   reading a timeslot lookup table including an entry that

4   specifies an assignment corresponding to a timeslot; and.

5   storing data associated with a particular timeslot in a

6   memory location based on the assignment, with data from a

7   particular channel included in timeslots having a data

8   assignment stored in contiguous memory locations.

1   2.   The method of claim 1 wherein the assignments include

2   a voice timeslot, an unassigned timeslot, and a data timeslot.

1   3.   The method of claim 1 further comprising

2   calculating the number of timeslots associated with a set

3   of data timeslots.

1   4.   The method of claim 3 wherein calculating the number

2   of timeslots includes locating a start-point and an end-point

3   of consecutive channels in a frame having the same assignment.

1   5.   The method of claim 3 wherein calculating the number

2   of timeslots includes locating a start-point and an end-point

3   of a set of data non-consecutive channels in a frame having

4   the same assignment.

1   6. The method of claim 2 wherein timeslots having a

2 voice assignment or an unassigned timeslot separate the

3 timeslots having a data assignment in the frame.

1   7. The method of claim 2 wherein storing the data

2 comprises:

3   storing the data included associated with voice timeslots

4 in a first memory;

5   storing the data associated with data timeslots in a

6 second memory; and

7   discarding the data associated with unassigned timeslots.

1   8. The method of claim 2 wherein storing the data

2 comprises:

3   storing the data associated with voice timeslots in a

4 first subset of locations in the memory;

5   storing the data associated with data timeslots in a

6 first subset of locations in the memory; and

7   discarding the data associated with unassigned timeslots.

1   9. The method of claim 1 further comprising storing the

2 frames associated with a voice assignment in a memory in the

3 order the frames are received.

1   10.   The method of claim 1 further comprising storing the

2   frames associated with a voice assignment such that all voice

3   assignment frames from a channel for a particular frame are

4   stored contiguously.

1   11.   A computer product or article of manufacture

2   configured to:

3   receive frames partitioned into multiple timeslots;

4   read a timeslot lookup table including an entry that

5   specifies an assignment corresponding to a timeslot; and

6   store data associated with a particular timeslot in a

7   memory location based on the assignment, with data from a

8   particular channel included in timeslots having a data

9   assignment stored in contiguous memory locations.

1   12.   The computer product or article of manufacture of

2   claim 11 wherein the assignments include a voice timeslot, an

3   unassigned timeslot, and a data timeslot.

1   13.   The computer product or article of manufacture of

2   claim 11 further configured to calculate the number of

3   timeslots associated with a channel in a frame having the same

4   assignment.

1   14. The computer product or article of manufacture of

2 claim 12 further configured to store the data included in a

3 set of data in contiguous timeslots.

1   15. The computer product or article of manufacture of

2 claim 14 further configured to

3   store the data included associated with voice timeslots

4 in a first memory;

5   store the data associated with data timeslots in a second

6 memory; and

7   discard the data associated with unassigned timeslots.

1   16. The computer product or article of manufacture of

2 claim 12 further configured to:

3   store the data associated with voice timeslots in a first

4 subset of locations in the memory;

5   store the data associated with data timeslots in a first

6 subset of locations in the memory; and

7   discard the data associated with unassigned timeslots.

1   17. A computer program product, tangibly embodied in an

2 information carrier, for executing instructions on a

3 processor, the computer program product being operable to

4 cause a machine to:

5   receive frames partitioned into multiple timeslots;

6   read a timeslot lookup table including an entry that

7 specifies an assignment corresponding to a timeslot; and

8   store data associated with a particular timeslot in a

9 memory location based on the assignment, with data from a

10 particular channel included in timeslots having a data

11 assignment stored in contiguous memory locations.

1   18.   The computer product of claim 17 wherein the

2 assignments include a voice timeslot, an unassigned timeslot,

3 and a data timeslot.

1   19.   The computer product of claim 17 further configured

2 to calculate the number of timeslots associated with a set of

3 data timeslots.

1   20.   The computer product of claim 18 further configured

2 to store the data included in a set of data in contiguous

3 timeslots.

1   21.   The computer product of claim 20 further configured

2 to

3   store the data included associated with voice timeslots

4 in a first memory;

5   store the data associated with data timeslots in a second

6 memory; and

7   discard the data associated with unassigned timeslots.

1   22. The computer product of claim 18 further configured

2   to:

3   store the data associated with voice timeslots in a first

4   subset of locations in the memory;

5   store the data associated with data timeslots in a first

6   subset of locations in the memory; and

7   discard the data associated with unassigned timeslots.

1   23. A system comprising:

2   a router including a processor configured to:

3   receive frames partitioned into multiple timeslots;

4   read a timeslot lookup table including an entry that

5   specifies an assignment corresponding to a timeslot; and

6   store data associated with a particular timeslot in a

7   memory location based on the assignment, with data from a

8   particular channel included in timeslots having a data

9   assignment stored in contiguous memory locations.

1   24. The system of claim 23 wherein the processor is

2   further configured to calculate the number of timeslots

3   associated with a channel in a frame having the same

4   assignment.

1   25. The system of claim 24 wherein the processor is

2   further configured to store the data included in a set of data

3   in contiguous timeslots.

1   26. The system of claim 25 wherein the processor is

2   further configured to:

3   store the data included associated with voice timeslots

4   in a first memory;

5   store the data associated with data timeslots in a second

6   memory; and

7   discard the data associated with unassigned timeslots.

1   27. The system of claim 25 wherein the processor is

2   further configured to:

3   store the data associated with voice timeslots in a first

4   subset of locations in the memory;

5   store the data associated with data timeslots in a first

6   subset of locations in the memory; and

7   discard the data associated with unassigned timeslots.

1   28. A finite state machine comprising instructions to

2   cause the state machine to:

3   scan a timeslot lookup table, the timeslot lookup table

4   including assignments associated with timeslots of a

5   partitioned frame;

6   determine the start of a channel of data in the frame;

7   and

8   determine the end of the channel of data in the frame.

1   29. The finite state machine of claim 28 further

2 comprising instructions causing the finite state machine to

3 calculate the length of a channel based on the determination

4 of the start of the channel and the end of the channel.

1   30. The finite state machine of claim 28 further

2 comprising instructions causing the finite state machine to

3 store the length of a channel in a memory.

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